



Swiss Confederation

Lufttüchtigkeitsanweisung (LTA) Consigne de Navigabilité (CN) Prescrizione di Aeronavigabilità (PA) Airworthiness Directive (AD)		FOCA AD HB-2007-382
Inkraftsetzung Mise en vigueur Entrata in vigore Effective Date	03 September 2007	Pilatus – PC-12 EASA TCDS No: EASA.A.089 ATA 32 – LANDING GEAR

Issue date: 27 August 2007

Subject: MAIN LANDING GEAR SPECIAL BOLTS – Identification, Replacement

Superseded / Revised ADs: Not applicable

1. APPLICABILITY:

PILATUS AIRCRAFT LTD.

All Model PC-12, PC-12/45 and PC-12/47 aircraft from Manufacturer Serial Number (MSN) 101 up to MSN 749 inclusive equipped with Main Landing Gear (MLG) assemblies and special bolts as follows:

- 1.1. MLG assemblies Part Number (P/N) 532.10.12.037, P/N 532.10.12.038, P/N 532.10.12.041, P/N 532.10.12.042, P/N 532.10.12.043, P/N 532.10.12.044, P/N 532.10.12.047, P/N 532.10.12.048, P/N 532.10.12.049, P/N 532.10.12.050, P/N 532.10.12.051 and P/N 532.10.12.052 delivered before 31 December 2006.
- 1.2. Special bolts P/N 532.10.12.110, P/N 532.10.12.205, P/N 532.10.12.077 and P/N 532.10.12.202 delivered before 31 December 2006.
- 1.3. Modification kit numbers 500.50.12.267, 500.50.12.286 and 500.50.12.299 delivered before 31 December 2006.

2. REASON:

It has been found that some of the above mentioned MLG special bolts can be defective. The problem is only applicable to specific bolts with serial numbers that start with the letters AT or have the supplier code AT. Investigations revealed that there is a possibility for hydrogen embrittlement which occurs during the manufacture process.

Components in this condition can decrease the specific fatigue life and could lead to MLG collapse during operation with consequent loss of airplane control.

In order to correct the situation, this AD requires the identification of all MLG special bolts to determine if the bolts have serial numbers that start with the letters AT or have the supplier code AT and the replacement of any affected special bolts.

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3. COMPLIANCE / ACTION:

Required as indicated below, unless previously accomplished:

Within the next 100 hours time-in-service (TIS) or three calendar months, whichever occurs first, after the effective date of this AD:

3.1. IDENTIFICATION / REPLACEMENT

- 3.1.1. Perform an inspection of the special bolts that attach the MLG retraction actuators and the special bolts that attach the shock absorbers to the MLG assemblies to identify the serial numbers that start with the letters AT or have the supplier code AT in accordance with paragraph 3.A. of PILATUS PC-12 Service Bulletin No. 32-020.
- 3.1.2. If during the inspection required by paragraph 3.1.1. of this AD any special bolts with a serial number starting with the letters AT or special bolts have the supplier code AT are found, prior to further flight, replace the specified bolts with new bolts with new P/Ns in all MLG assemblies in accordance with paragraph 3.B. of PILATUS PC-12 Service Bulletin No. 32-020.

4. PARTS INSTALLATION:

As of the effective date of this AD, no person shall install:

- 4.1. Any special bolts with P/Ns and delivery date as referenced in paragraph 1.2. of this AD that have serial numbers that start with the letters AT or have supplier code AT on any Pilatus PC-12 Series aircraft.
- 4.2. Any MLG assemblies with P/Ns as referenced in paragraph 1.1. of this AD that contain any special bolts as referenced in paragraph 4.1. of this AD on any Pilatus PC-12 Series aircraft.
- 4.3. Any modification kit numbers as referenced in paragraph 1.3. of this AD and that contain any special bolts as referenced in paragraph 4.1. of this AD on any Pilatus PC-12 Series aircraft.

5. REF. PUBLICATIONS:

The actions required by this AD shall be done in accordance with the manufacturer's documentation listed in this paragraph, and/or later revisions approved by the authority of DOA No. EASA. 21J. 357.:

Manufacturer's Documentation

- PILATUS PC-12 Service Bulletin No. 32-020, dated 24 July 2007.
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The applicable manufacturer's documentation may be obtained directly from:

PILATUS AIRCRAFT LTD.
CUSTOMER SUPPORT MANAGER
CH-6371 STANS, Switzerland

TEL No.: +41 41 619 6208
FAX No.: +41 41 619 7311
Email: SupportPC12@pilatus-aircraft.com

6. FOR FURTHER INFORMATION CONTACT:

FEDERAL OFFICE OF CIVIL AVIATION (FOCA)

Design and Production (STEH)
CH-3003 Bern, Switzerland

FAX No.: +41 31 325 9324 (or)
FAX No.: +41 31 322 5918